QUESTIONNAIRE FOR IZOD IMPACT MACHINE VERIFICATION

IMPORTANT: This questionnaire contains information to help you perform a successful verification test using SRM 2115. Energy results are required for verification. Other specific information is requested to help evaluate the condition of your machine. The questionnaire and the fractured specimens must be shipped to: Izod Program Coordinator, NIST, Division 853, 325 Broadway, Boulder, CO 80305-3328. Phone: 303/497-3351 Fax: 303/497-5939

Location of Machine

Company _____

Address _____

_____

City _____ State Province _____

Country _____ Zip Postal Code _____

Mailing Address for Verification Letter (if different from above)

Company _____

Address _____

_____

City _____ State Province _____

Country _____ Zip Postal Code _____

Test Machine (Circle appropriate units where indicated)

1. Machine Manufacturer _____

2. Machine Serial Number _____

3. What is the maximum energy capacity of the machine? _____
(Joules or ft·lbf)

4. If the machine is adjustable, what capacity was used for this test? _____
(Joules or ft·lbf)

5. Your machine should be securely bolted to a concrete foundation or a steel block having a mass not less than 40 times that of the pendulum. Your machine should be leveled according to the requirements of the current ASTM Standard E23.

6. ASTM Standard E23 does not allow the use of expansion bolts or fasteners with driven in inserts. These types of fasteners will work loose from the foundation and tighten up against the bottom of the machine indicating a false torque value. Only J or T bolts are permitted by the standard. What type of bolts are used to mount your machine? (J, lag, etc.) _____

7. Is your machine equipped with a carbide striker and/or anvils? _____

8. With the pendulum in the free hanging position, engage the energy indicator. The indicator should read within 0.2 % of the maximum energy range being used.

9. What is the friction/windage loss of your machine? _____
(Joules or ft·lbf)

(A) Raise the pendulum to the latched position. Without a specimen in the machine, release the pendulum and permit it to swing 11 half cycles; after the pendulum starts its 11th half cycle, move the pointer to between 5 to 10 % of scale range capacity and record the dial reading. _____(Joules or ft·lbf)

(B) Divide the value by 11, then divide by the maximum scale range of the machine and multiply by 100. The result, friction and windage loss, should not exceed 0.4 %.

10. With the specimen removed from your machine and the pendulum released from its latched position, what is the dial reading after one swing?_____
(Joules or ft·lbf)

This reading should be zero. If this reading is not zero and your machine is equipped with a compensated scale, please adjust the dial to read zero. If your machine is equipped with a non-compensated scale, please compensate the energy values for windage and friction by subtracting the windage and friction value calculated in item 13.

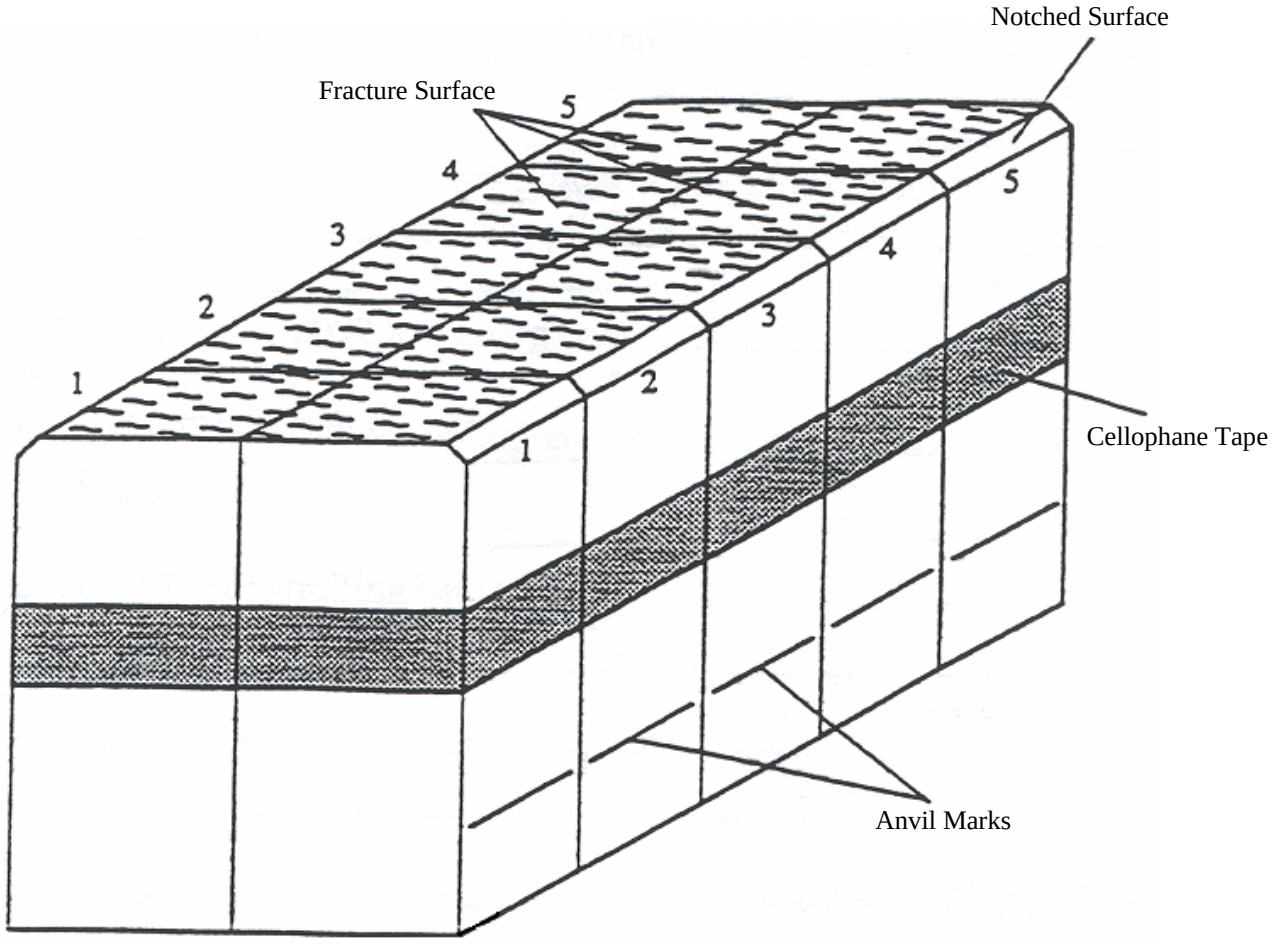
11. When was your machine last verified by the NIST? Date: _____

12. Is your machine equipped with a direct reading scale or a non-compensated scale? _____

_____

WRAPPING INSTRUCTIONS

To expedite the evaluation of your machine, please secure the 5 broken specimens (10 halves) from a particular energy series, as one unit with **clear cellophane tape** according to the following instructions. See diagram below.



1. Keep broken halves correctly paired (back to back) with the fracture surfaces facing upward and notched surfaces facing outward.

2. Coat the **FRACTURE SURFACES ONLY** with a light coat of oil. **DO NOT** use grease or coat in plastic.

3. Include this completed questionnaire with the fractured specimens.

4. Be sure that you use the **MAILING LABEL** provided with the specimens, and attach the label so that it is clearly displayed on the **OUTSIDE** of the package. This will expedite delivery to the Charpy Coordinator. Customers returning specimens from outside the United States should include the following statement on the U.S. Customs Declaration: **Contents include U.S. manufactured steel test bars being returned to the U.S. for evaluation and are valued at less than 10 U.S. dollars.**

TEST RESULTS

INDICATE ENERGY UNITS (circle units used)

Joules or ft·lbf

Series _____ **SRM 2115**	
Specimen Number	**Value**
Average Value	

Date of Test _____
(Month/ Day/ Year)

_____ Telephone _____
PRINT Test Operator

Fax _____

_____ Email _____
SIGNATURE Test Operator

_____ Telephone _____
PRINT Company Representative

Fax _____

_____ Email _____
SIGNATURE Company Representative

If you require approval of your machine by the Defense Contract Management Command (DCMC), a DCMC representative should provide his or her **signature and the DCMC seal** to indicate that the preceding information was witnessed by a government representative.

_____
Print Name of DCMC Official

DCMC Seal

_____
Signature of DCMC Official and Seal

_____
DCMC Office Location